



U.S. Department of the Interior • Bureau of Mines

**MINERAL INDUSTRY SURVEYS**

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Aluminum, Monthly

**ALUMINUM IN OCTOBER 1993**

Domestic primary aluminum production was 303,015 metric tons in October, according to the U.S. Bureau of Mines. The average daily production rate was 9,775 tons, slightly higher than that of the previous month but 12% below the rate for October 1992.

The monthly average spot or market price of primary aluminum ingot decreased to 51.11 cents per pound in October 1993, according to Metals Week. According to the American Metal Market, the published buying price range for processed aluminum used beverage can (UBC) scrap in carload lots decreased 2 cents per pound at the beginning of the month to 32 to 37 cents per pound, and remained at this range through the remainder of October.

For the first 9 months of 1993, imports for consumption of crude and semicrude aluminum, including scrap, increased 45% compared with those for the same period in 1992. The bulk of this increase was in the crude metals and alloys category. Although there have been large increases in the quantity of metal imported from several countries, the most dramatic increase has been in the level of imports from the former U.S.S.R. The total crude metals and alloys imported in 1992 from the former U.S.S.R. was 16,384 tons. Through September 1993, these imports from the former U.S.S.R. total 305,337 tons, almost 20 times the level of imports for all of 1992.

Total exports for the first three quarters of 1993 decreased 13% compared with those for the same period in 1992.

**Update:**

The monthly average spot or market price of primary aluminum ingot decreased to 49.95 cents per pound in November. In early November, the buying price range for aluminum UBC scrap widened to 30 to 37 cents per pound, and remained at this level through the remainder of the month.

**Special Bureau Publications:**

The Bureau of Mines has recently released two new special publications covering several different commodities.

Recycled Metals in the United States provides a brief overview of the technology and history of recycling for 22 metals. The discussion of recycling in this publication is focused on metals that are used to an important degree in metallic form. The discussion is further focused on recycling in the United States, although an attempt is made to put U.S. recycling into regional and world contexts.

Chemical Industry Applications of Industrial Minerals and Metals provides information on the use of minerals in the chemical industry for 48 commodities. The chemical industry was defined by the Standard Industrial Classification (SIC) code 28, Chemicals and Allied Products. Included are the raw



materials used directly for chemical manufacture and also consumable mineral products such as filter media and catalysts. This paper does not attempt to define every chemical produced from every mineral, nor to address organic chemicals, but to provide a broad perspective of the large- to medium-sized minerals-consuming sectors of the chemical industry.

Copies of either or both of these publications, while supplies last, may be obtained by writing to the U.S. Bureau of Mines, 810 Seventh Street NW, MS #5208, Washington, DC 20241 or by faxing your request to 202-501-9961.

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TABLE 1  
COMPONENTS OF ALUMINUM SUPPLY

(Thousand metric tons)

Period	Primary production	Secondary recovery <sup>1/</sup>			Imports for consumption			Total new supply <sup>3/</sup>	Total stocks end of period <sup>4/</sup>
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total <sup>2/</sup>		
1992:5/ -----	4,042	1,145	1,612	2,757	1,156	304	1,459	8,258	1,875
January -----	344	86	105	191	101	21	122	657	1,961
February -----	320	84	101	185	93	21	114	619	1,972
March -----	343	81	112	193	97	25	122	658	1,985
April -----	330	83	114	197	95	27	122	649	2,001
May -----	342	85	116	201	96	26	122	665	2,035
June -----	330	82	106	188	88	26	114	632	2,034
July -----	339	76	113	189	82	30	112	640	1,967
August -----	340	73	114	187	103	26	129	656	1,986
September -----	330	79	112	191	94	26	120	641	2,005
October -----	343	82	113	195	108	26	134	672	1,968
November -----	335	72	102	174	101	26	127	636	1,935
December -----	347	75	95	170	97	23	120	637	1,875
1993:									
January -----	335	96	132	228	121	31	152	715	1,842
February -----	292	93	127	220	124	25	149	661	1,935
March -----	323	105	137	242	166	33	199	764	1,982
April -----	313	105	146	251	172	33	205	r/769	2,022
May -----	325	107	144	251	152	33	185	761	2,034
June -----	315	109	140	249	153	31	184	748	2,063
July -----	316	98	139	237	125	31	156	709	2,105
August -----	302	101	141	242	163	37	200	744	r/2,124
September -----	291	102	140	242	173	34	207	740	p/2,115
October -----	303	104	137	241	NA	NA	NA	NA	NA

p/Preliminary. r/Revised. NA Not available.

1/Metallic recovery from purchased, tolled, or imported scrap, expanded for full coverage of industry.

2/Data may not add to totals shown because of independent rounding.

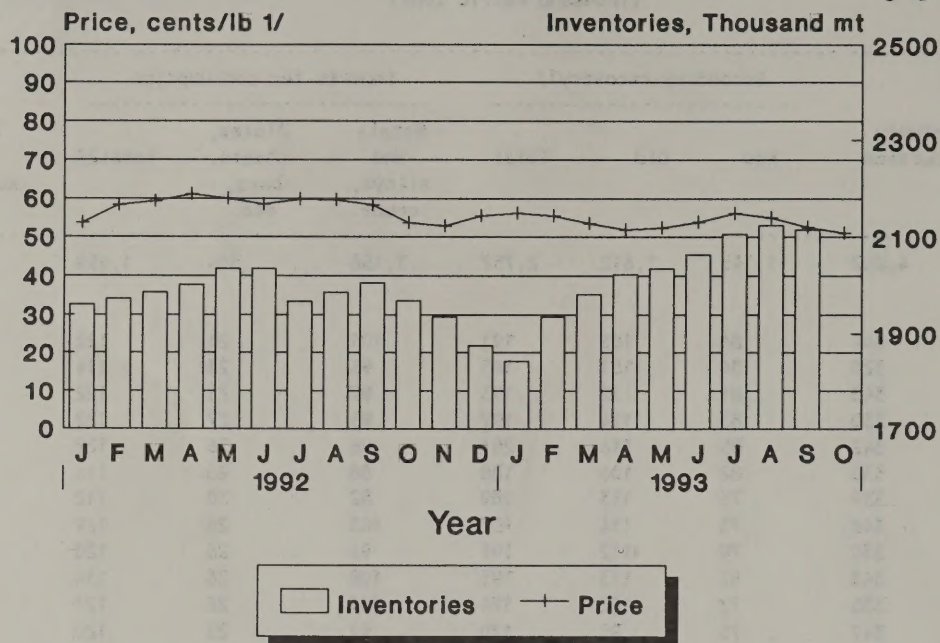
3/Primary production, secondary recovery, and imports for consumption.

4/Includes scrap. Source: Current Industrial Reports, Series M33-2, U.S. Department of Commerce, Bureau of the Census.

5/Includes monthly and annual data.



## \$ Aluminum Price vs. Inventories



1/Metals Week avg. market price

## Aluminum Primary Production (1000 Metric tons)

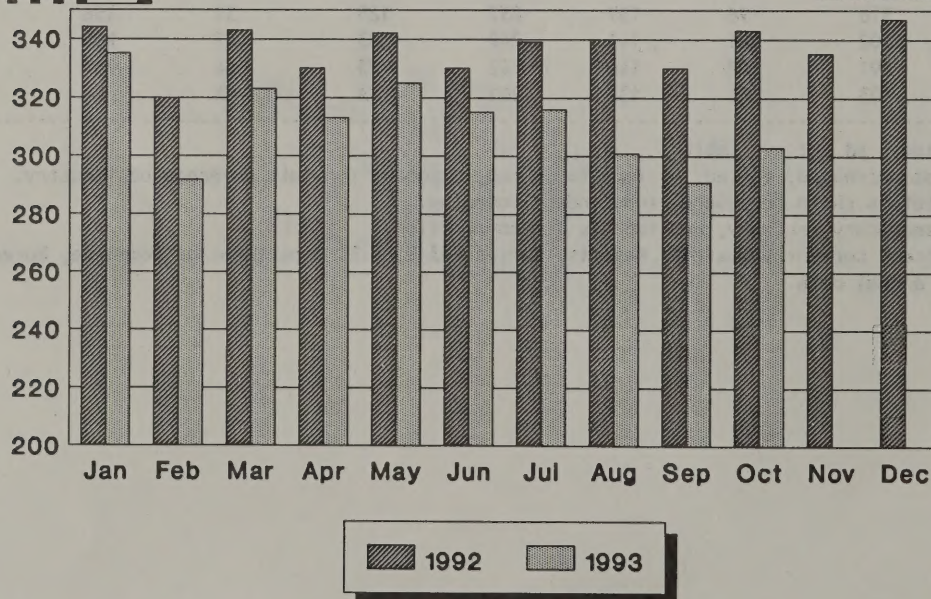
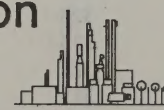




TABLE 2  
ESTIMATED FULL COVERAGE CONSUMPTION OF AND METALLIC RECOVERY FROM PURCHASED NEW AND OLD ALUMINUM SCRAP

(Thousand metric tons)

Period	Secondary smelters		Integrated aluminum companies		Independent mill fabricators		Foundries		Other consumers		Total <sup>1/</sup>	
	Con- sump- tion	Metal recov- ery	Con- sump- tion	Metal recov- ery	Con- sump- tion	Metal recov- ery	Con- sump- tion	Metal recov- ery	Con- sump- tion	Metal recov- ery	Con- sump- tion	Metal recov- ery
1992:2/ -----	1,033	891	1,366	1,215	608	556	94	83	12	12	3,113	2,757
January ---	56	50	107	96	40	36	10	8	1	1	214	191
February --	56	50	102	91	40	36	7	7	1	1	206	185
March -----	58	52	108	96	41	36	9	8	1	1	217	193
April -----	56	50	113	100	41	37	10	9	1	1	221	197
May -----	59	53	112	100	44	39	10	8	1	1	226	201
June -----	59	53	97	86	44	39	10	9	1	1	211	188
July -----	50	45	110	98	43	38	7	6	1	1	211	188
August ----	53	47	107	95	41	37	9	7	1	1	211	187
September -	54	48	105	94	45	40	8	7	1	1	213	190
October ---	56	50	113	101	41	37	8	6	1	1	219	195
November --	51	46	99	88	35	32	9	7	1	1	195	174
December --	50	45	92	82	40	36	7	6	1	1	190	170
1993:												
January ---	92	80	102	91	53	49	9	8	1	1	257	229
February --	89	78	95	85	53	48	10	8	1	1	248	220
March -----	92	80	110	98	60	55	9	8	1	1	272	242
April -----	93	81	120	106	59	54	9	8	1	1	281	250
May -----	95	83	110	98	67	61	9	8	1	1	282	251
June -----	92	80	111	99	67	62	9	8	1	1	280	250
July -----	89	77	108	96	63	58	6	5	1	1	267	237
August ----	89	77	108	96	66	60	9	8	1	1	272	242
September -	90	78	108	96	65	59	9	8	1	1	273	242
October ---	90	78	109	97	63	58	9	8	1	1	272	241

1/Data may not add to totals shown because of independent rounding.

2/Includes monthly and annual data.

TABLE 3  
CONSUMPTION OF AND RECOVERY FROM PURCHASED  
NEW AND OLD ALUMINUM SCRAP IN OCTOBER 1993

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters -----	75,530	89,800	65,259	77,700
Integrated aluminum companies -----	108,949	108,949	96,926	96,926
Independent mill fabricators -----	52,523	63,000	48,158	57,800
Foundries -----	7,652	9,200	6,835	8,200
Other consumers -----	591	700	591	700
Total -----	245,245	1/272,000	217,769	1/241,000

1/Rounded.

TABLE 4  
PURCHASED AND TOLL-TREATED ALUMINUM-BASE SCRAP AND SWEATED PIG IN  
OCTOBER 1993

(Metric tons)

	Stocks opening	Net receipts1/	Melted or consumed	Stocks closing
NEW SCRAP:				
Solids-----	19,528	56,322	58,450	17,400
Can stock clippings -----	r/4,313	15,954	17,132	3,135
Other clippings -----	9,447	10,443	9,991	9,899
Borings and turnings -----	4,582	11,280	11,278	4,584
Dross and skimmings -----	2,068	5,354	5,393	2,029
Total new scrap -----	r/39,938	99,353	102,244	37,047
OLD SCRAP:				
Used casting, sheet, and clippings -	r/24,172	61,580	61,637	24,115
Aluminum-copper radiators -----	1,621	853	820	1,654
Used cans (shredded, loose, baled) -	r/31,322	68,965	74,889	25,398
Fragmentized scrap (auto shredder) -	W	W	W	W
Other -----	575	4,593	4,539	629
Total old scrap -----	r/57,690	135,991	141,885	51,796
SWEATED PIG -----	520	1,109	1,116	513
Total all classes -----	r/98,148	236,453	245,245	89,356

r/Revised. W Withheld to avoid disclosing company proprietary data; included in "Other."

1/Includes data on imported aluminum-base scrap.



TABLE 5  
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS  
IN THE UNITED STATES IN OCTOBER 1993 1/

(Metric tons)

	Stocks opening	Production	Net shipments	Stocks closing
<b>DIE CAST ALLOYS</b>				
13% Si, 360, etc. (0.6% Cu, max.) -----	2,910	3,069	3,257	2,722
380 and variations -----	13,086	36,973	36,942	13,117
<b>SAND AND PERMANENT MOLD</b>				
95/5 Al-Si, 356, etc. (0.6% Cu, max.) --	11,607	6,470	6,472	11,605
No. 319 and variations -----	2,326	4,749	4,687	2,388
F-132 alloy and variations -----	3,855	4,559	4,673	3,741
Al-Zn alloys -----	679	296	267	708
Al-Si alloys (0.6% to 2.0% Cu) -----	550	876	872	554
Al-Cu alloys (1.5% Si, max.) -----	99	115	124	90
Other2/ -----	4,178	3,397	3,312	4,263
<b>WROUGHT ALLOYS</b>				
Extrusion billets -----	9,679	6,803	6,732	9,750
<b>Total all alloys3/ -----</b>	<b>48,970</b>	<b>67,306</b>	<b>67,337</b>	<b>48,939</b>
<b>Less:</b>				
Primary aluminum consumed -----	--	6,479	--	--
Primary silicon consumed -----	--	3,069	--	--
Other alloying ingredients consumed -----	--	297	--	--
<b>Net metallic recovery from aluminum scrap and sweated pig consumed in production of secondary aluminum ingot4/ -----</b>	<b>--</b>	<b>57,461</b>	<b>--</b>	<b>--</b>

1/Excludes integrated aluminum companies.

2/Includes alloys No. 12, Al-Mg, Al-Si-Cu-Ni, aluminum-base hardeners, variations of these alloys, plus other aluminum alloys.

3/Data do not add to totals shown because of independent rounding.

4/No allowance made for melt-loss of primary aluminum and alloying ingredients.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN SEPTEMBER 1993

(Metric tons)

Country	Metals and alloys, crude		Plates, sheets bars, etc.		Scrap		Total1/	
	September	Jan.-Sept.	September	Jan.-Sept.	September	Jan.-Sept.	September	Jan.-Sept.
Argentina-----	--	--	(2/)	45	--	--	(2/)	45
Australia-----	--	1	61	1,120	--	--	61	1,121
Bahrain-----	--	--	673	6,209	--	--	673	6,209
Belgium-----	99	215	462	5,052	87	372	649	5,638
Brazil-----	16,087	37,875	494	2,250	--	4	16,581	40,130
Canada-----	94,105	927,191	22,606	177,790	18,726	133,901	135,438	1,238,882
Croatia-----	--	--	163	1,465	--	--	163	1,465
Czech Republic-----	--	19	--	--	--	--	--	19
France-----	178	1,580	764	7,964	205	1,490	1,148	11,034
Germany-----	202	2,124	1,472	14,104	806	5,794	2,480	22,022
Ghana-----	--	--	--	242	--	--	--	242
Hungary-----	--	--	422	4,511	--	--	422	4,511
Italy-----	4	20	125	1,936	--	--	129	1,956
Japan-----	18	446	806	12,102	12	110	836	12,658
Korea, Republic of-----	--	64	6	81	--	10	6	155
Macedonia-----	--	--	32	266	--	--	32	266
Mexico-----	--	39	409	1,965	4,740	36,927	5,149	38,931
Netherlands-----	--	2,510	227	3,317	258	3,684	486	9,511
Norway-----	20	110	202	1,336	--	--	222	1,447
Russia-----	47,268	295,254	402	3,086	605	12,690	48,275	311,030
Slovakia-----	--	--	--	18	--	--	--	18
Slovenia-----	--	--	506	4,069	--	--	506	4,069
South Africa, Republic of-----	43	112	729	2,369	--	--	772	2,481
Spain-----	--	2,121	1,180	12,011	--	31	1,180	14,164
Sweden-----	--	151	374	3,073	20	571	394	3,795
Switzerland-----	--	13,770	74	352	--	59	74	14,181
Tajikistan-----	2,380	10,083	--	--	--	--	2,380	10,083
Ukraine-----	--	--	--	--	--	110	--	110
United Arab Emirates-----	299	2,610	--	--	--	--	299	2,610
United Kingdom-----	305	2,471	264	4,357	434	3,336	1,003	10,163
Venezuela-----	9,868	44,383	1,218	11,610	2,059	19,963	13,145	75,956
Other-----	2,595	5,300	773	5,501	1,134	10,699	4,502	21,499
Total1/-----	173,472	1,348,451	34,444	288,201	29,087	229,750	237,003	1,866,401

1/Data may not add to totals shown because of independent rounding.

2/Less than 1/2 unit.

Source: Bureau of the Census.



TABLE 7  
U.S. EXPORTS OF ALUMINUM IN SEPTEMBER 1993

(Metric tons)

Country	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total1/	
	September	Jan.-Sept.	September	Jan.-Sept.	September	Jan.-Sept.	September	Jan.-Sept.
Australia-----	43	792	126	989	--	43	170	1,824
Belgium-----	4	24	159	1,248	--	26	162	1,298
Brazil-----	--	17	884	5,910	--	454	884	6,380
Byelarus-----	--	--	--	18	--	--	--	18
Canada-----	8,404	58,667	29,926	235,752	4,382	34,801	42,712	329,220
China-----	98	225	1,781	13,103	727	6,359	2,606	19,687
Czech Republic-----	--	(2/)	--	39	--	--	--	39
Dominican Republic-----	--	5	37	577	--	--	37	581
France-----	4	916	113	4,934	--	571	116	6,421
Germany-----	25	135	444	9,519	--	76	469	9,729
Hong Kong-----	232	4,293	829	3,009	476	5,306	1,537	12,608
India-----	--	9	4	54	102	418	106	481
Israel-----	--	13	149	1,439	--	1	149	1,453
Italy-----	1	69	265	1,648	1	52	267	1,769
Japan-----	12,082	183,967	1,167	12,892	6,427	75,181	19,675	272,041
Korea, Republic of-----	1,661	14,004	1,138	9,080	565	4,956	3,364	28,040
Malaysia-----	59	662	142	1,977	2	536	204	3,175
Mexico-----	3,186	23,914	5,514	48,379	1,246	13,494	9,946	85,787
Netherlands-----	--	140	119	3,390	18	254	137	3,783
Russia-----	--	--	79	184	--	--	79	184
Saudi Arabia-----	--	19	2,843	13,921	--	--	2,843	13,939
Singapore-----	1	49	332	2,895	57	656	390	3,600
Slovenia-----	--	--	--	--	--	18	--	18
Spain-----	--	5	66	2,412	--	--	66	2,417
Sweden-----	--	1	81	1,143	--	--	81	1,145
Taiwan-----	1,538	18,987	1,341	10,863	1,508	11,101	4,387	40,952
Thailand-----	364	6,066	284	3,877	--	826	648	10,769
United Kingdom-----	6	490	1,133	14,007	140	197	1,279	14,695
Venezuela-----	1	61	1,061	12,318	--	--	1,062	12,378
Other-----	216	3,536	3,098	25,620	216	4,414	3,530	33,571
Total1/-----	27,926	317,066	53,111	441,195	15,867	159,741	96,904	918,001

1/Data may not add to totals shown because of independent rounding.

2/Less than 1/2 unit.

Source: Bureau of the Census.











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